

Please add new claims 69-105 as follows:

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69. (New) An oligonucleotide which (1) is immobilized, (2) comprises the sequence TACGGACGGAACT (SEQ ID NO:3), (3) is linked to a fluorescent dye at its 5' terminus, and (4) is linked to a primary amine group at its 3' terminus.
70. (New) An oligonucleotide which (1) is immobilized, (2) comprises the sequence TACGGACGGAACTGTTTTTTTTTTT (SEQ ID NO:4), (3) is linked to a fluorescent dye at its 5' terminus, and (4) is linked to a primary amine group at its 3' terminus.
- E | 71. (New) The oligonucleotide of claim 69 or 70, wherein the fluorescent dye is 6-(fluorescein-6-carboxamido) hexanoate.
72. (New) The oligonucleotide of claim 69 or 70, wherein the primary amine group is a C-7 amine.
73. (New) The oligonucleotide of claim 69 or 70, wherein the oligonucleotide is immobilized on a solid support.
74. (New) The oligonucleotide of claim 73, wherein the solid support is a glass bead.
75. (New) An oligonucleotide which (1) is immobilized, (2) comprises the sequence TACGGACAGAACT (SEQ ID NO:1), (3) is linked to a fluorescent dye at its 5' terminus, and (4) is linked to a primary amine group at its 3' terminus.

76. (New) An oligonucleotide which (1) is immobilized; (2) comprises the sequence TACGGACAGAACTGTTTTTTTTTTT (SEQ ID NO:5), (3) is linked to a fluorescent dye at its 5' terminus, and (4) is linked to a primary amine group at its 3' terminus.
77. (New) The oligonucleotide of claim 75 or 76, wherein the fluorescent dye is 6-(fluorescein-6-carboxamido) hexanoate.
78. (New) The oligonucleotide of claim 75 or 76, wherein the primary amine group is a C-7 amine.
79. (New) The oligonucleotide of claim 75 or 76, wherein the oligonucleotide is immobilized on a solid support.
80. (New) The oligonucleotide of claim 79, wherein the solid support is a glass bead.
81. (New) An oligonucleotide which (1) has a sequence which corresponds to a portion of a nucleic acid which encodes human hepatitis B virus surface antigen, wherein the sequence is AGGATCAACAACAACCGTA (SEQ ID NO:6), and (2) is linked at its 5' terminus to a biotin group.
82. (New) An oligonucleotide which (1) has the sequence ATCGTCCTGGGCTTTCGCAA (SEQ ID NO:7), and (2) is linked at its 5' terminus to a fluorescent dye.
83. (New) The oligonucleotide of claim 82, wherein the fluorescent dye is Texas red.

84. (New) A composition which comprises a first oligonucleotide and a second oligonucleotide, wherein:

- (a) the first oligonucleotide (1) has the sequence AGGATCAACAACAACCGTA (SEQ ID NO:6), and (2) is linked at its 5' terminus to a biotin group; and
- (b) the second oligonucleotide (1) has the sequence ATCGTCCTGGGCTTTCGCAA (SEQ ID NO:7), and (2) is linked at its 5' terminus to a Texas red fluorescent dye.

85. (New) A method for identifying a human hepatitis B virus surface antigen mutant 145 in a sample which comprises:

- (A) obtaining a viral nucleic acid from the sample;
- (B) amplifying the viral nucleic acid in a polymerase chain reaction using two primers, wherein
 - (1) one primer is a first oligonucleotide which (i) has the sequence AGGATCAACAACAACCGTA (SEQ ID NO:6), and (ii) is linked at its 5' terminus to a biotin group; and
 - (2) the other primer is a second oligonucleotide which (1) has the sequence ATCGTCCTGGGCTTTCGCAA (SEQ ID NO:7), and (2) is linked at its 5' terminus to a fluorescent dye;
- (C) obtaining, from the amplified nucleic acid, single stranded nucleic acid which comprises the fluorescent dye; and
- (D) contacting the single stranded nucleic acid

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which comprises the fluorescent dye to an immobilized third oligonucleotide, which oligonucleotide comprises a sequence which (i) corresponds to a portion of a human hepatitis B virus surface antigen nucleic acid, which portion comprises a mutation present in a mutant human hepatitis B virus, (ii) is linked to a fluorescent dye at its 5' terminus, and (iii) is linked to a primary amine group at its 3' terminus, under conditions permitting hybridization between the single stranded nucleic acid which comprises the fluorescent dye and the third oligonucleotide,

31


wherein hybridization between the single stranded nucleic acid which comprises the fluorescent dye and the immobilized third oligonucleotide identifies the sample as one containing a human hepatitis B virus surface antigen mutant 145.

86. (New) The method of claim 85, wherein the mutation in step (D)(i) is present at the amino acid at position 145 of human hepatitis B virus surface antigen.
87. (New) The method of claim 85, wherein the third oligonucleotide comprises the sequence TACGGACAGAACT (SEQ ID NO:1).
88. (New) The method of claim 85, wherein the third oligonucleotide comprises the sequence TACGGACAGAACTGTTTTTTTTTTT (SEQ ID NO:5).
89. (New) The method of claim 85, wherein the fluorescent

dye which is linked to the third oligonucleotide is 6-(fluorescein-6-carboxamido) hexanoate.

90. (New) The method of claim 85, wherein the primary amine group which is linked to the third oligonucleotide is a C-7 amine.
91. (New) The method of claim 85, wherein the third oligonucleotide is immobilized on a solid support.
92. (New) The method of claim 91, wherein the solid support is a glass bead.
93. (New) The method of claim 85, wherein the third oligonucleotide (1) is immobilized, (2) comprises the sequence TACGGACAGAACTGTTTTTTTTTTT (SEQ ID NO:5), (3) is linked to 6-(fluorescein-6-carboxamido) hexanoate at its 5' terminus, and (4) is linked to a C-7 amine at its 3' terminus.
94. (New) The method of claim 85, wherein the fluorescent dye which is linked to the primer in step (B)(2) is Texas red.
95. (New) The method of claim 85, wherein the sample is a serum sample.
96. (New) A method for identifying a wildtype human hepatitis B virus surface antigen in a sample which comprises:
- (A) obtaining a viral nucleic acid from the sample;
 - (B) amplifying the viral nucleic acid in a

polymerase chain reaction using two primers,
wherein

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- (1) one primer is a first oligonucleotide which (i) has the sequence AGGATCAACAACAACCACTA (SEQ ID NO:6), and (ii) is linked at its 5' terminus to a biotin group; and
 - (2) the other primer is a second oligonucleotide which (1) has the sequence ATCGTCCTGGGCTTTCGCAA (SEQ ID NO:7), and (2) is linked at its 5' terminus to a fluorescent dye;
 - (C) obtaining, from the amplified nucleic acid, single stranded nucleic acid which comprises the fluorescent dye; and
 - (D) contacting the single stranded nucleic acid which comprises the fluorescent dye to an immobilized third oligonucleotide, which oligonucleotide comprises a sequence which (1) corresponds to a portion of a wildtype human hepatitis B virus surface antigen nucleic acid, (2) is linked to a fluorescent dye at its 5' terminus; and (3) is linked to a primary amine group at its 3' terminus, under conditions permitting hybridization between the single stranded nucleic acid which comprises the fluorescent dye and the third oligonucleotide,

wherein hybridization between the single stranded nucleic acid which comprises the fluorescent dye and the third oligonucleotide identifies the sample as one containing a wildtype human hepatitis B virus surface antigen.

97. (New) The method of claim 96, wherein the third oligonucleotide comprises the sequence TACGGACGGAAACT (SEQ ID NO:3).
98. (New) The method of claim 96, wherein the third oligonucleotide comprises the sequence TACGGACGGAAACTGTTTTTTTTTTTTT (SEQ ID NO:4).
99. (New) The method of claim 96, wherein the fluorescent dye which is linked to the third oligonucleotide is 6-(fluorescein-6-carboxamido) hexanoate.
100. (New) The method of claim 96, wherein the primary amine group which is linked to the third oligonucleotide is a C-7 amine.
101. (New) The method of claim 96, wherein the third oligonucleotide is immobilized on a solid support.
102. (New) The method of claim 101, wherein the solid support is a glass bead.
103. (New) The method of claim 96, wherein the third oligonucleotide (1) is immobilized; (2) comprises the sequence TACGGACGGAAACTGTTTTTTTTTTTTT (SEQ ID NO:4); (3) is linked to 6-(fluorescein-6-carboxamido) hexanoate at its 5' terminus, and (4) is linked to a C-7 amine at its 3' terminus.
104. (New) The method of claim 96, wherein the fluorescent dye which is linked to the primer in step (B)(2) is Texas red.